

## Abstract

A cross-coupled differential MOS oscillator having reduced phase noise is applicable to a RF communication device such as a transmitter or receiver. The oscillator having low phase noise is formed of a frequency dependent amplifier to amplify a signal having a fundamental frequency; a frequency dependent feedback device that is connected between an output of the frequency dependent amplifier and an input of the frequency dependent amplifier to feed a portion of an amplified signal having the fundamental frequency to an input of the frequency dependent amplifier to stimulate oscillation; and a attenuating device in communication with the frequency dependent amplifier. The attenuating device reduces the gain of the frequency dependent amplifier for signals having frequencies much, much less than the fundamental frequency to decrease the phase noise.